

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-2. (Canceled)

3. (Currently Amended) A personal identification device, comprising an infrared source for illuminating an infrared ray to a target to be identified, and a light receiving element row facing the infrared source and containing a plurality of light receiving elements forming a line and having a elongated side which receive the infrared ray illuminated from said infrared source, wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row from a direction perpendicular to the elongated side of said light receiving element and such that, when said target to be identified is relatively scanned with respect to said light receiving element row, a two-dimensional image representing a blood vessel pattern of said target to be identified is produced from outputs of said light receiving element row and relative displacement information of said target to be identified, thereby performing personal identification based on the produced image, wherein said light receiving element row is provided with a filter member allowing transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row.

4. (Original) The personal identification device according to Claim 3, wherein said target to be identified is a human hand or finger.

5. (Canceled)

6. (Previously Amended) The personal identification device according to Claim 3, wherein a position detecting device for detecting a position of said target to be identified is disposed, and said two-dimensional image of said target to be identified is produced from the outputs of said light receiving element row and position information from said position detecting device.

7. (Previously Amended) The personal identification device according to Claim 3, wherein an identified-target detecting device for detecting the presence or absence of said target to be identified is disposed in a position away from said light receiving element row.

8. (Original) The personal identification device according to Claim 7, wherein said identified-target detecting device is disposed in plural, a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, which are detected by said plurality of identified-target detecting devices, and distance correction of said image in a scan direction is performed based on the speed of said target to be identified.

9. (Original) The personal identification device according to Claim 7, wherein a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, which are

detected by said light receiving element row and said identified-target detecting device disposed one or in plural, and distance correction of said image in a scan direction is performed based on the speed of said target to be identified.

10. (Previously Amended) The personal identification device according to Claim 3, wherein said light receiving elements extend along a straight line.

11. (Previously Amended) The personal identification device according to Claim 3, wherein said light receiving elements have a curvature.

12. (Canceled)

13. (Previously Amended) The personal identification device according to Claim 10, wherein an interval between two adjacent light receiving elements in said light receiving element row is from 0.02 mm to 0.5 mm.

14. (Canceled) The personal identification device according to Claim 3, wherein said light receiving element row is provided with a filter member allowing transmission of only a component of incident light, which substantially perpendicularly enter said light receiving element row.

15. (Previously Amended) The personal identification device according to Claim 3, wherein said light source and said light receiving element row are disposed in a casing, said device being configured to cause light from said light source to illuminate the finger inserted in said casing, and said casing has a cavity in which the finger is inserted, the depth of said cavity defining the elongated side.

16. (Previously Amended) The personal identification device according to Claim 3, further comprising a C-shaped support member including a first member, a second member and a third member for connecting said first and second members to each other, said infrared source being mounted to said first member, and said light receiving element row being mounted to said second member, said device operating such that when a finger is scanned over said light receiving element row,.

17. (Previously Amended) The personal identification device according to Claim 3, further comprising a bottom member, a frame member disposed to surround said bottom member from three sides thereof, said infrared source being mounted to said frame member, and said light receiving element row being mounted to said bottom member.

18. (Previously Amended) The personal identification device according to Claim 15, wherein said casing has a smooth inner surface to prevent a part of the infrared ray from said infrared source, which has been reflected by the finger, from entering said light receiving element row.

19. (Previously Amended) The personal identification device according to Claim 3, wherein personal identification is performed by comparing a previously registered feature parameter and a feature parameter of an image obtained from the outputs of said light receiving element row.

20. (Original) The personal identification device according to Claim 6, wherein said position detecting device is provided with a button capable of being pushed by the finger, cleaning means is mounted to said button, and a surface of said light receiving element row is cleaned with scan of said button.